DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

CIRCULAR NO.SU/ COM &MGT./C.B.C.& G.S./28/2021

It is hereby informed to all concerned that, the syllabi of following courses prepared by the Board of Studies & recommended by the Dean, Faculty of Commerce & Management the **Academic Council at its meeting held on 15 February 2021 has decided that to adopt the Choice Based Credit and Grading System from the academic Year 2020-2021 Under the Faculty of Commerce & Management.**

Sr. No.	Name of the Course	Semester
1]	B.Com.	VI
2]	BBA	VI
3]	BCA	VI
4]	B.Com. E-Commerce	IV
5]	MPM	IInd

This is effective from the Academic Year 2020-2021 & onwards as appended herewith.

All concerned are requested to note the contents of this circular and bring the notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.
Ref.No. SU/ COM.MGT/2020-21
29439 ~ 29789
Date:- 17-03-2021.

Deputy Registrar,
Academic Section
Syllabus unit.

Copy forwarded with compliments to :-
1] The Principals, affiliated concerned Colleges,
Dr. Babasaheb Ambedkar Marathwada University.
2] The Director, University Network & Information Centre, UNIC, with a request to upload this Circular on University Website.
Copy to :-
1] The Director, Board of Examination & Evaluation,
2] **The Section Officer, [Commerce Unit] Examination Branch,**
3] The Section officer, [Eligibility Unit].
4] **The Programmer [Computer Unit-1] Examinations,**
5] **The Programmer [Computer Unit-2] Examinations,**
6] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambekar Marathwada University.
7] The Public Relation Officer
8] The Record keeper

B.C.A. VI Sem

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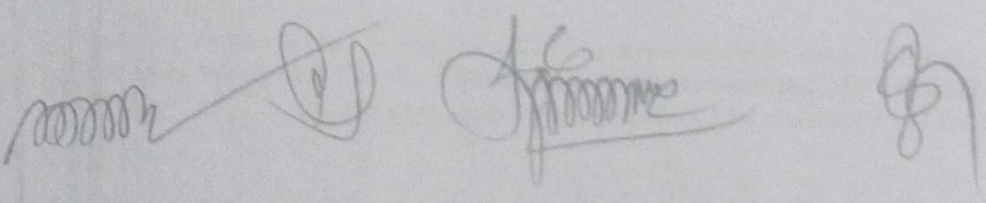# DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.

Curriculum of

BACHELOR OF COMPUTER APPLICATION

(BCA)

IIIRD YEAR

SIX SEMESTER

under Choice Based Credit & Grading System

[Effective from the Academic Year 2020-21 & onwards]

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.

FACULTY OF COMMERCE & MANAGEMENT.

Syllabus – Bachelor of Computer Application (BCA)
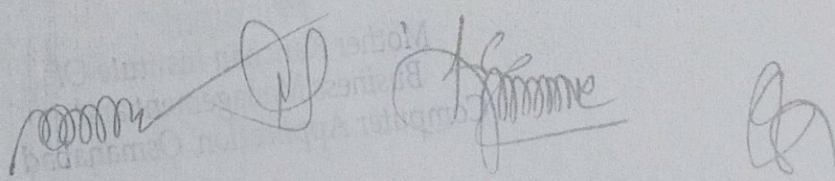
Choice Based Credit System (CBCS)

Semester & Credits	Core Course [04]	Ability Enhancement Compulsory Courses [AEC] [01]	Discipline Specific Elective [DSE] [01]
VI Credit 24	1. Element of Commercial Portal (HTML 5) 2. Android 9 3. Business Law - III 4. Project	1.Software Testing	Elective Paper [Any One] 1.Services Marketing OR 2. Export Management
Total Credits 24	No. of Credits : 16	No. of Credits :04	No. of Credits : 04

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Structure of B. C. A. Sixth Semester

Choice Based Credit Grading System (CBCS) 2019 - 2020

Paper Number	Subject/ Title of the Paper	Course	Weekly		Credits		IA	UA	Total Marks	Duration of Theory Exam
			Th	Pr	Th	Pr				
XXXI	Elements of Commercial Portals (HTML 5)	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXII	Android 9	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXIII	.Business Law III	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXIV	Project	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXV	Software Testing	Ability Enhancement Compulsory	4	-	4	-	20	80	100	3 Hrs
XXXVI	1.Services Marketing OR 2.Export Management	Discipline Specific Elective [Any One]	4	-	4	-	20	80	100	3 Hrs
	Total		24	-	24	-	120	480	600	--

B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXI – Elements of Commercial Portals (HTML 5)

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Objectives:

- Student will be able to know the elements of commercial portals with XML, JQuery and other details.

		No. of Lectures
Unit 1	**HTML 5**	**10**

Introduction , form elements – Date, Date Time, Email, Number, Range, Tel, Color, URL, Date Time Local, Month , Week, Time, Placeholder Attribute, Autofocus Attribute, Required Attributes , HTML Audio , Video

Unit II	**XML**	**08**

2.1 Concept of XML, features of XML
2.2 Writing XML elements attributes etc.
2.3 XML with CSS, programs on it.
2.4 XML with DSO, programs on it.
2.5 XML Namespace, XML DTD, programs on it.
2.6 XML schemas, writing simple sheet using XSLT
2.7 SAX Parser, DOM Parser
2.8 Introduction to SOAP, Examples of XML

Unit III	**jQuery - I**	**14**

3.1 Introduction to jQuery, Syntax Overview
3.2 Anatomy of a jQuery Script, Creating first jQuery script
3.3 Traversing the DOM, Selecting Elements with jQuery,
3.4 Refining & Filtering Selections, Selecting Form Elements
3.5 Working with Selections - Chaining, Getters & Setters
3.6 CSS, Styling, & Dimensions
3.7 Manipulating Elements - Getting and Setting Information about Elements, Moving, Copying, and Removing Elements, Creating New Elements

Unit IV	**jQuery - II**	**14**

4.1 Manipulating Attributes, Utility Methods
4.2 Events - Connecting Event to Elements, Namespacing Events, Event handling, Triggering Event handlers, Event Delegation
4.3 JQuery Effects –hide/show, fade, slide, animate, callback, stop
4.4 Interactions – Draggable, Droppable, Resizable, Selectable, Sortable
4.5 Widgets - Accordian, DatePicker, Menu, Tabs
4.6 Plugins – Using readymade plugins, Create a basic plugin, Writing Plugins

Unit V	**AJAX**	**14**

5.1 AJAX Overview
5.2 jQuery's AJAX related methods,
5.3 Ajax and Forms
5.4 Ajax Events

Practical: 20 Marks (to be conducted by the department in each college as per convenience)
Sessional Work: 20 Marks (Based on Unit II, III and IV e.g. HTML 5 , XML , JQuery and AJAX)

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Text Books :
1. HTML, DHTML, JavaScript, Perl & CGI Ivan Bayross
2. HTML & CSS : The Complete reference, Fifth Edition By Thomas Powell
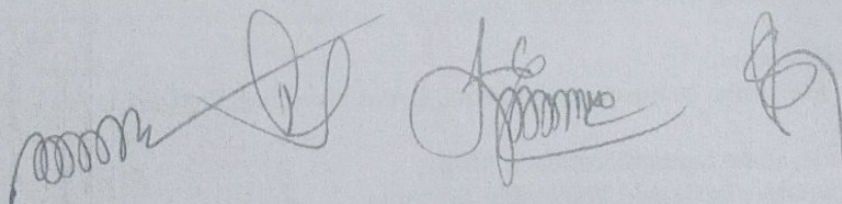
Reference Books :
1. Html, Xhtml, And Css Bible (English) 5th Edition (paperback) by Schafer, Steven
2. HEAD FIRST HTML AND CSS, 2/ED (UPDATED FOR HTML) by ROBSON
3. Beginning HTML and CSS (English) (Paperback) by Rob Larsen
4. Learn to Code HTML and CSS (English) (Paperback) by Howe
5. Head First HTML5 Programming by Elisabeth Freeman and Eric Freeman
6. Introducing HTML5 - Bruce Lawson, Remy Sharp
7. AngularJS - Brad Green, Shyam Seshadri
8. Learning jQuery - Jonathan Chaffer, Karl Swedberg
9. Professional Ajax, 2nd Edition Wrox Press
10. Internet Technology at work Hofstetter fred, TMH.
11. Beginning XML Wrox Press
12. XML how to program Deitel & Deitel, Pearson Pub.
13. Programming the World Wide Web Robert W. Sebesta, Pearson, 4th Ed.

Web references:
1. www.w3school.com
2. www.tutorialpoint.com

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B.C.A. VI⁶ Semester Syllabus (CBCS)
Paper No. XXXII – Android 9

Theory   – 80 Marks
Sessional – 20 Marks

Objectives:

1. To facilitate students to understand Android SDK & Basics of Android Application Development.

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2. To impart working knowledge of Android Studio development tool.

No. of Lectures

		No. of Lectures
Unit 1	**Environment Setup**:	12

Unit 1 — Environment Setup: (12)
Developing for android installing the android SDK, Installing the updates to the SDK, Android Development Tools (ADT) Plugin, developing with Eclipse. Create Android Application, Create Android Virtual Device, and Architecture: Linux kernel, Libraries, Android Runtime, and Application Framework.

Unit II — Application Components: (12)
Application Components Activities, Services, Broadcast Receivers, content Providers. Anatomy of Android Application, The Main Activity File, The Manifest File, The Strings File, The R File, The Layout File, Running the Application.
Types Of Android Application: Foreground Application, Background Application, Intermittent Application.

Unit III — Resources Organizing & Accessing: (12)
Alternative Resources, Accessing Resources. The Dalvik Debug Monitor Service, The Android Debug Bridge.
UI Layouts: Android Layout Types, Relative Layout Attributes, Grid View Attributes, Sub-Activity, Layout Attributes, View Identification, UI Controls, Android UI Controls, TextView Attributes, AutoComplete Text View Attributes, Button Attributes, ImageButton Attributes, CheckBox Attributes, ToggleButton Attributes, RadioButton Attributes, RadioGroup Attributes

Unit IV — Intents and Filters: (12)
Intent Objects, Action, Android Intent Standard, Actions, Data, Category, Extras, Flags, Component Name, Types of Intents: Explicit Intents, Implicit Intents. Externalizing Resources, Android Application Life Cycle.
Fragments: Creating New Fragments, The Fragment Life-Cycle, Fragment States, Adding Fragments to Activities.

Unit V — Event Handling: (12)
Event Listeners & Event Handlers, Event Listeners Registration, Styles and Themes, Defining Styles, Using Styles, Style Inheritance, Android Themes, Default Styles & Themes, Custom Components, Creating a Simple Custom Components.

Practical's U/A : 20 Marks

Sessional Work	: 20 Marks
Test /Practical	: 10 Marks
Tutorial/ Programming File	: 10 Marks

Reference Books :
1. Android in Practice - Charlie Collins, Michale Galpin, Matthias Kaeppler – Manning Publications 2012
2. Steele J.: The Android Developer's Cookbook: Building Applications with the Android SDK., Addison-Wesley Professional, 2010
3. Conder S., Darcey L.: Android Wireless Application Development, 3rd edition, Addison-Wesley Professional 2012
4. Professional Andriod 4 Application Development: Retomeier, Wrox Publication.

Web Reference:

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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXIII – Business Law III
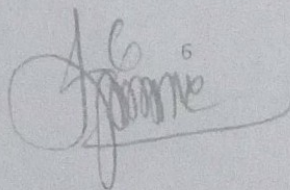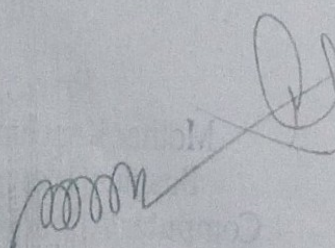
Theory   – 80   Marks
Sessional – 20   Marks

Objectives: To acquaint students about the concept of Laws in India, with latest Amendments.

No. of Lectures
12

Unit 1   Information Technology Act 2000
- Cyber Crime : Meaning and Nature
- Terms used in Cybercrime : Hacking, Phishing, Preachers, Cyber Space, IP Spoofing, Leapfrog Attack ; Meaning and its effects on Cyber users
- Teenage Web Vandals, Cyber Fraud, Virus on the Internet, Defamation, Harassment and E-mail Abuse, Cyber Pornography, Other IT Act Offences
- Monetary Penalties, Adjudication and Appeals under IT Act 2000
- Jurisdiction and Criminal Justice in India, Strategies to handle cybercrime and trends

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Unit II IT Contracts and Standards   12
- Contracts in the InfoTech World, Contract Formation on Internet, Terms and Conditions on Contracts
- NIST : National Institute of Standards and Technology ; Objectives and working
- Copyright - Meaning, Ownership and Assignment, License of Copyright, Copyright Protection of Content on the Internet

Unit III Security Tools and Technologies and Services   12
- Firewall, Denial of Services (DoS), Digital Signature, Digital Signature Certificate, Packet sniffer, SSL, HTTPS, Pen Register
- CERT : Computer Emergency Response Team : Introduction and Objectives

Unit IV Cyber Security and Protection to Cyber Users   12
- National Cyber Security Policy 2013 – Cyber security : meaning; NCSP 2013 - meaning, Aim and Objectives, Reasons of NCSP 2013, Strategies NCSP 2013
- NSA : National Security Agency – case study

Unit V Consumer Protection Act 1986 (with Amendments 2019)   12
- Essential terms in Consumer Protection Act, Consumer Complaint, Defects in Goods and Services, Restrictive and Unfair Trade Practices, Instance of Unfair Trade Practices, Reliefs under CPA, Consumer Forum, Jurisdiction and Implications in India. E-Commerce Transactions, E-Filing of Complaints, Product Liability and Penal Consequences,

Sessional Works : 20 Marks

Tests   : 10 Marks   Tutorials   : 10 Marks

Reference Books:

1. Dr. Avtar Singh : Company Law; Eastern Book Company, 34, Lalbagh, Lucknow.
2. C.R. Datta : Datta on the Company Law; Lexis Nexis, Butterworths Wadhwa, Nagpur
3. A. Ramaiya : Guide to the Companies Act; Lexis Nexis, Butterworths Wadhwa, Nagpur
4. Corporate Law- Bharat Law House Prt Ltd. New Delhi.
5. Desai. T.R. Indian Contract Act, S.C. Sarkar and sons Pvt.Ltd

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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXIV – Project

Theory – 80 Marks
Project Report – 20 Marks

Objectives:
- As per the syllabi of BCA, each student has to go for Research Project selecting a topic from his/her specialization area or Area of Interest.

Types Of Project: (20 Lectures)
The Project may be taken on any one of the following areas:
1. The project should be done in core specialization area of B.B.A course only.
2. Comprehensive case study (covering single organization/multifunctional area problem, formulation analysis and recommendations)
3. Inter-organizational study aimed at inter-organizational comparison/ validation of theory/survey of management services.
4. Evolution of any new conceptual / theoretical framework.
5. Field study (empirical study)

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6. The project can be based on primary or secondary data or both as well. (20 Lectures)

Contents of Project Synopsis:

The synopsis must be submitted containing the following contents:

    i)   Title of the project.
    ii)   Review of literature and Problem Statement.
    iii)   Objectives of the proposed study.
    iv)   Research Methodology (Sources of data, Sampling, Tools of analysis etc.)
    v)   Scope/Relevance of Proposed Study.
    vi)   Proposed Questionnaire (if any).
    vii)   References.

Main Project: (20 Lectures)

Contents of Project Report:

1) Introduction and Rationale of the topic chosen
2) Objectives of the study
3) Literature Review and problem formulation.
4) Research Methodology.
5) Analysis/discussion and interpretation of Data.
6) Conclusions/findings and recommendations/Suggestions.
7) References/Bibliography.
8) Appendix.

    a) Questionnaire, if any
    b) Interview schedule, if any
    c) List of the companies surveyed.
    d) Raw data, if the candidate wants to submit
    e) Graphs/Diagrams etc.
    f) Any other document relevant to the study

Project Report : Students are expected to prepare model Project Report   **20 Marks**

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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXV – Software Testing

Theory – 80 Marks
Sessional – 20 Marks

Objectives:

- The purpose of this course is to understand the Software Engineering process, DFD, FDD, Software Inspection Process, Maintenance,.

Unit	Overview of Systems Analysis and Design System Concepts :	No. of Lectures
1	1) Types of systems: Information System	12
	2) System Development Life cycle	
	3) Role & Skills of system Analyst	

Models:
1) Waterfall
2) Prototyping
3) Spiral (including WIN-WIN Spiral)
4) RAD

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	5) Group Based Approach: JAD	
	6) Object Oriented Methodology	
Unit II	**A) Current Trends in Software Engineering:**	14
	1.1 Software Engineering for Projects & Products.	
	1.2 Introduction to Web Engineering and Agile process	
	B) Information Requirement Analysis:	
	1) Decision Analysis Tools: Decision Tree, Decision Table, Structured English	
	2) Functional Decomposition Diagram	
	3) Process modeling with physical and logical Data Flow Diagrams	
	4) Data Dictionary	
	Case Studies on Decision analysis tools, FDDs, DFDs should be covered	
Unit III	**Software Analysis :**	14
	Requirements Engineering; Feasibility Study: economical, operational, social, technical, Requirements Elicitation; Requirements Analysis; Requirements Validation and Management.	
	Size Estimation; Cost Estimation Models; COCOMO. COCOMO II; Software Risk Management.	
	Activities in Requirements Determination	
	a) Requirements Anticipation	
	b) Requirements Investigation	
	c) Requirements Specifications	
Unit IV	**Software Requirement Specification (SRS):**	12
	1] Structure and contents of the requirements specification analysis modeling, types of requirements - functional and non-functional , Quality criteria, requirements definition ,SRS format. Fundamental problems in defining requirements	
	2] Structure and standards followed for SRS	
	3] characteristics of good SRS –	
	Unambiguous , complete , verifiable , consistent , modifiable , traceable , usable during maintenance	
Unit V	**Maintenance:**	10
	5.1 Types of Maintenance	
	5.2 Maintenance Cost	
	5.3 Reverse Engineering	
	5.4 Introduction to legacy systems	
	Documentation:	
	5.5 Types	
	5.6 Role of Documentation Maintenance	
	SESSIONAL WORK: 20 Marks	
	College can take decision as per their convenience.	

Text Books:

1. Software Engineering by Pressman

Reference Books :

1. System Analysis and Design by Jalote
2. Software Engineering by Sommerville
3. Software Engineering - W S Jawadekar
4. System Analysis & Design methods – Whiten, Bentley
5. System Analysis & Design – Elias Awad
6. Object Oriented Modelling& Design – James Rumbaugh
7. Analysis & Design of Information System – James Senn
8. Analysis & Design of Information System – V. Rajaraman

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9. Software Engineering Concepts-Richard Fairley

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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXVI – Services Marketing (Elective)

Total : 100 Marks
Theory :80 Marks
Sessional : 20 Marks

No. of Lectures

		No. of Lectures

Unit 1 **Introduction :**
Service Marketing, Concept, Nature of Services, Characteristics of Services, Classification of Services, Need and Importance of Service Marketing, objectives and Problems of Service Marketing, Difference between Goods and Service. Difference between Software Products and Software Services

12

Unit II **Marketing Communication :**
Meaning, Elements of marketing communication, Process of marketing communication – The Customer, The Business Environment and The Media, Role of Marketing Communication, Approaches in Marketing Communication - Corporate and Marketing oriented, Strategies in Marketing Communication – to match service promises with delivery, Key reasons for GAP4 involving communication

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| Unit III | **Promotion and Distribution of Services :** | 12 |

Unit III	**Promotion and Distribution of Services :** Promotion – Meaning and Concept, Objectives in Service marketing, Advertisements and Sales Promotion of Services, Distribution : Concept, Channels of Distribution, Obstacles in distribution, Recent Trends in distribution, Significance of Market Segmentation in Service Marketing	12
Unit IV	**Service Process and Performance:** Service process – Concept, Steps in Service Process, 7 P's of Service Marketing Mix, Performance in Service Marketing – Concept, Monitoring of Marketing Performance, Triangle Model for Performance, Special Service Marketing Practices	12
Unit V	**Techniques in Service Marketing:** B2B Strategies, GAP Model, PZB Model	12

Sessional Work	: 20 Marks
Two Tests	: 10 Marks
Two Tutorials	: 10 Marks

References Books :

1. Rampal & Gupta, "Service Marketing", Sultan Chand
2. Bhattacharjee, "Service Marketing", Excel Publisher
3. Zeithmal, "Service Marketing", Tata McGraw Hill, Third Edition
4. Govind Apte, "Service Marketing", Oxford University Press
5. Rama Mohana Raok, "Services Marketing", Pearson Education
6. Helen Woodruff, "Services Marketing",
7. Ardien Payne, "Essence of Services Marketing",
8. M.N. Mishra, "Sales Promotion & Advertising Management", Himalaya Publication
9. Dr. Niraj Kumar, " Marketing Communication", Himalaya Publishing House

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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXVI – Export Management (Elective)

Theory – 80 Marks
Sessional – 20 Marks

Objective:

- Students will be able to acquire the knowledge about Import Export Trade and Promotions in India
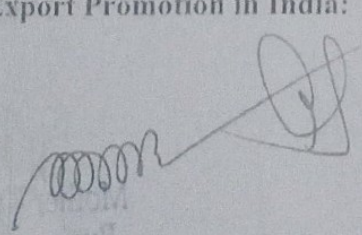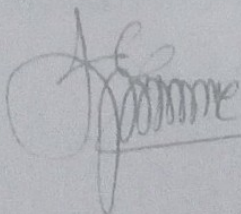
No. of Lectures

Unit I	**India's Foreign Trade:**	12
	- India's Foreign Trade & Development	
	- Trends in India's foreign Trade	
	- Composition of Exports	
	- Major problems of Export Sector	
Unit	**Export Promotion in India:**	12

II	• Evolution of Export Promotion Policies in India • Regulatory Mechanism in Export Promotion • Export Promotion Measures in India • Obstacles faced in effective Export Promotion Effort	

Unit III   **Institutional Framework for Export Promotion in India:**   12
- Govt. policy making & consultations
- Export Promotion Councils & Commodity Boards
- Technical & Specialised Services Assistances
- Govt. participation in foreign trade & organisational setup in the states.
- Commercial wing of Indian Embassies Abroad

Unit IV   **Export Finance in India:**   12
- Types of export finance
- Features of pre-shipment and post-shipment finance
- Methods of payment
- Role of commercial banks and EXIM bank in export finance

Unit V   **Common Export Documents, EPZ, EOU & SEZ**   12

A. Commercial Documents
- Commercial Invoices
- Bill of lading
- Airway Bill
- Combined Transport Documents
- Insurance Certificate

B. Statutory Documents
- Documents for registration of firm
- Documents for shipping

C. Export Processing Zones & Export Oriented Units
- Meaning & objectives
- Major sectors
- Need for special license
- Benefits/facilities provided

D. Special Economic Zones
- Meaning & objectives
- Criteria for setting up of SEZ
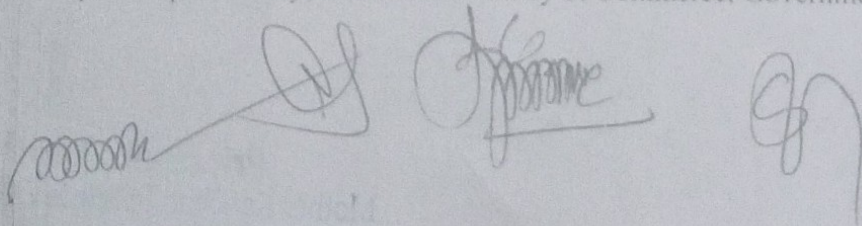- Advantages of SEZ Units in India

Sessional Work   : **20 Marks**
Two Tests   : 10 Marks
Two Tutorials   : 10 Marks

Reference Books :
1. Export Import Policy, Publisher: Ministry of Commerce, Government of India, New
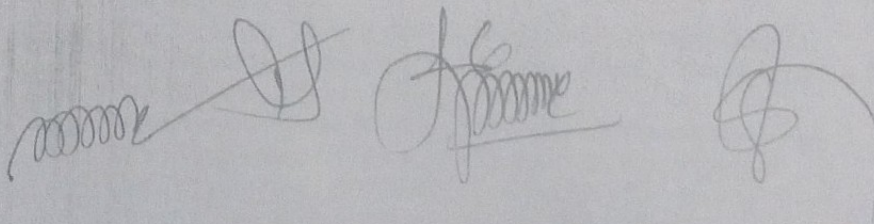
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Delhi.
2. Export Management – Francis Cheruuilam – Himalaya Publishing House, Mumbai.
3. Export Management – P. K. Khurana – Galgotia Publishing Company, New Delhi.
4. Export Management – D. C. Kapoor – Vikas Publishing House Pvt. Ltd., New Delhi.
5. International Marketing and Export Management – Pearson Publication, New Delhi.

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